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21269	7590	07/28/2004	EXAMINER	
PEPPER HAMILTON LLP ONE MELLON CENTER, 50TH FLOOR 500 GRANT STREET PITTSBURGH, PA 15219			HENDRICKSON, STUART L	
			ART UNIT	PAPER NUMBER
			1754	

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/069,362
Filing Date: June 05, 2002
Appellant(s): ANTHONY ET AL.

James M. Singer
For Appellant

EXAMINER'S ANSWER

MAILED

JUL 28 2004

GROUP 1700

This is in response to the appeal brief filed 5/12/04.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is substantially correct. The changes are as follows: The rejections under 35 USC 112 2nd paragraph have been withdrawn.

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(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-22 versus 28 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

4124690	Strong et al.	11-1978
3609818	Wentorf, Jr. et al.	10-1971
3134739	Cannon	5-1964

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-22 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strong et al. alone or taken with Wentorf Jr. et al.

Strong teaches in columns 4-6 treating type 1b diamond by annealing at elevated temperature and pressure in a press, resulting in a color change. This differs from the claims only in not reciting a pressure-transmitting pill encasing the diamond, however Strong teaches placing graphite around the diamond. This is deemed to render the use of a pill obvious, in order to gain the benefits recited in column 4. Therefore, it is deemed that the diamond is inside a pill- especially after the pressing starts and compacts the graphite powder.

In so far as Strong does not teach or form a pill, or that the claims require the presence of a pill prior to insertion into the apparatus, Wentorf teaches in column 4 the use of talc (which contains MgO) or salt as pressure-transmitting media. Using talc in the process of Strong is an obvious expedient to attain uniform pressure on the diamond being treated and prevent inhomogeneous pressure and corresponding defects.

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Concerning the various dependent claims, treating diamonds having a particular type, N content, or platelets is an obvious expedient to make a more valuable material, as is repeating the treatment for improved effect.

Claims 1-16, 19-22 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon.

Cannon teaches in columns 2-4 placing colored diamond and graphite filler into a press and treating under HP/HT, with a resulting change in color. As the diamonds are yellow, it appears they are Type 1A; if not, using the claimed type is an obvious expedient to treat an available diamond. Cannon does not describe the use of a pill, however forming the graphite/diamond charge into a pill is an obvious expedient to avoid air pockets which would interfere with the pressure transmission or diffusion of the AI. Repeating the process is an obvious expedient to attain the desired effect. Column 6 line 72 teaches brown diamonds.

(11) Response to Argument

Concerning Strong/Wentorf, it is noted that yellow can be thought of as a combination of yellow and black. Moreover, as the art of record indicates, brown natural diamonds are very common, are of little value and are mainly for industrial uses. Thus, treating them is an obvious way to improve their value, with little economic downside. Essentially, while Strong does not explicitly teach 'treat brown diamonds', doing so is an obvious expedient to one of ordinary skill to vastly improve the value of a diamond. As Strong teaches the claimed process steps, it is not necessary to teach the mechanism. The claims do not require the steps of characterizing the diamond (by ESR) and then choosing treatment based upon the analysis, which appears to be the real inventive step of the process. The claims are not limited to 'a lighter or colorless

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diamond'. In fact, claim 1 requires just the opposite of colorless. The references are combinable- if need be- for the reasons recited in the rejection, which relate to the pill and not the diamond starting material.

Cannon is a US patent and is deemed operable, and the allegations in the Declaration were addressed. See the paper of 12/8/03, which states that applicants have apparently shown that their own process does not work upon brown diamonds, and that Cannon reports a color change. Therefore, the Declaration does not make a relevant comparison. The publication cited teaches on pg. 1557 that AI diffuses into diamond. Note the energetic conditions in Cannon.

Claim 28, while said to be separately patentable, was not explicitly so argued. The claims does not require initial characterization of the diamond, rather it recites characteristics which encompass impurities; in other words, any imperfect or contaminated diamond would be expected to have the centers as claimed.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



SLH
July 26, 2004

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